

Pressure Reducing (and Check) Valve

5.2 to 73.9 gpm
3045 psi

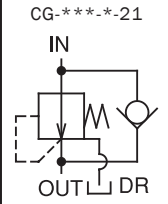
Features

This valve is used when part of the circuit uses pressure that is lower than the main circuit.

Even when pressure changes in the primary main circuit, the reduced secondary pressure is adjusted automati-

cally and maintained at a constant level. Connecting a remote control valve to the vent port allows remote control of adjustment pressure.

The mounting surface of the gasket conforms to the ISO standards shown in the table below.

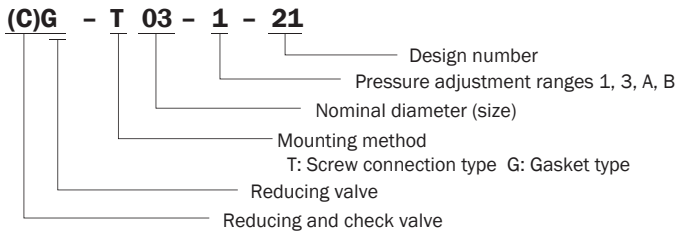


Specifications

Model No.		Nominal Diameter (Size)	Maximum Working Pressure psi	Maximum Flow Rate gpm	Pressure adjustment range psi	Weight lbs		Gasket Surface Dimensions
Screw Mounting	Gasket Mounting					T Type	G Type	
(C)G-T03- A-21 B-21	(C)G-G03- A-21 B-21	3/8	3045 IN, OUT, Vent Port	5.2	36 to 145 43 to 362	7.2 7.9	8.5 9.2	ISO 5781-AG-06-2-A
(C)G-T03-1-21 3-21	(C)G-G03-1-21 3-21	3/8		13.2	116 to 1015 507 to 3045	7.2 7.9	8.5 9.2	
(C)G-T06-1-21 3-21	(C)G-G06-1-21 3-21	3/4		31.7	116 to 1015 507 to 3045	12.5 13.4	13.6 14.5	ISO 5781-AH-08-2-A
(C)G-T10-1-21 3-21	(C)G-G10-1-21 3-21	1 1/4		73.9	116 to 1015 507 to 3045	22 25	26 29	ISO 5781-AJ-10-2-A

Weight values in parentheses are for when a check valve is included.
The cracking pressure of the check valve is 14.5 psi.

Understanding Model Numbers

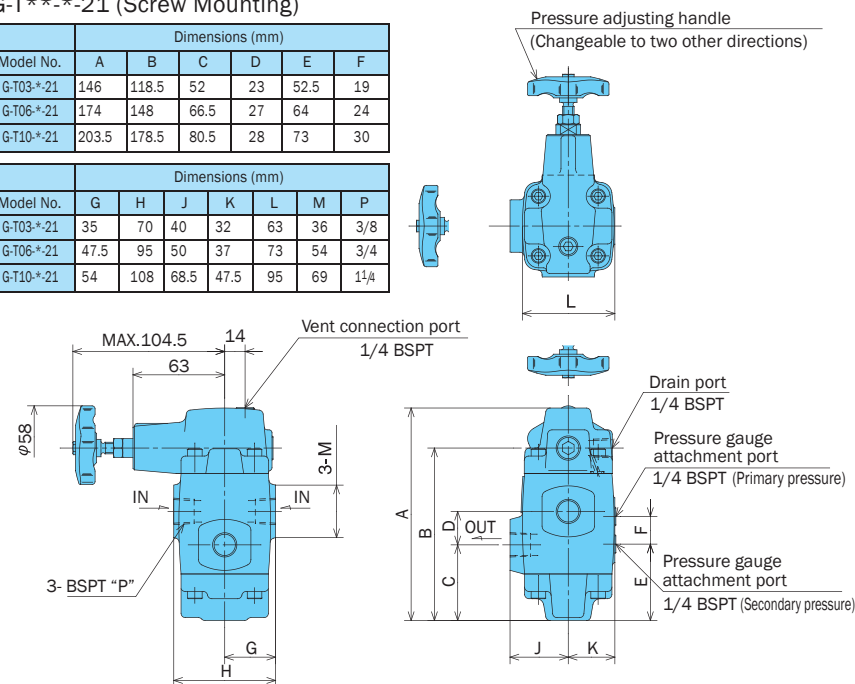


Installation Dimension Drawings

G-T*-*-21 (Screw Mounting)

Model No.	Dimensions (mm)					
	A	B	C	D	E	F
G-T03*-21	146	118.5	52	23	52.5	19
G-T06*-21	174	148	66.5	27	64	24
G-T10*-21	203.5	178.5	80.5	28	73	30

Model No.	Dimensions (mm)						
	G	H	J	K	L	M	P
G-T03*-21	35	70	40	32	63	36	3/8
G-T06*-21	47.5	95	50	37	73	54	3/4
G-T10*-21	54	108	68.5	47.5	95	69	1 1/4



Handling

- 1 Provide an independent drain pipe directly to the tank.
- 2 When using a remote control valve, connect piping to the reducing valve vent port. Pipe capacity can be a source of vibration. Use of thick iron pipe with an inside diameter of no more than .15" and a connection length of no more than three meters is recommended.
- 3 Use the following table for specification when a sub plate is required.

Model No.	Pipe Diameter	Weight lbs	Applicable Valve Model
MG-03-20	3/8	3.5	(C)G-G03*-21
MG-03X-20	1/2		
MG-06-20	3/4	8.6	(C)G-G06*-21
MG-06X-20	1		
MG-10-20	1 1/4	14.7	(C)G-G10*-21
MG-10X-20	1 1/2		

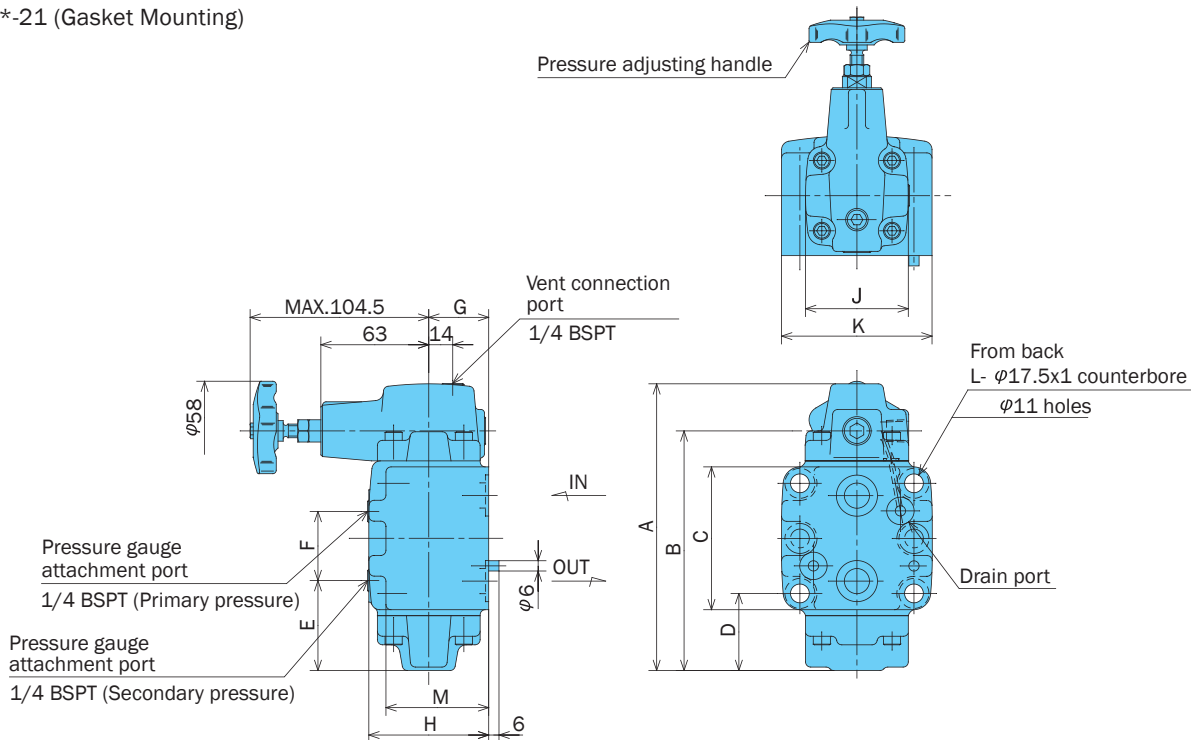
These sub plates can also be used for pressure control valves.

- 4 The following are the bundled mounting bolts.

Model No.	Bolt Dimensions	Q'ty	Tightening Torque ft lbs
(C)G-G03*-21	M10 × 75 ℓ	4	33 to 40.5
(C)G-G06*-21	M10 × 85 ℓ	4	
(C)G-G10*-21	M10 × 105 ℓ	6	

Note: For mounting bolts, use 12T or equivalent.

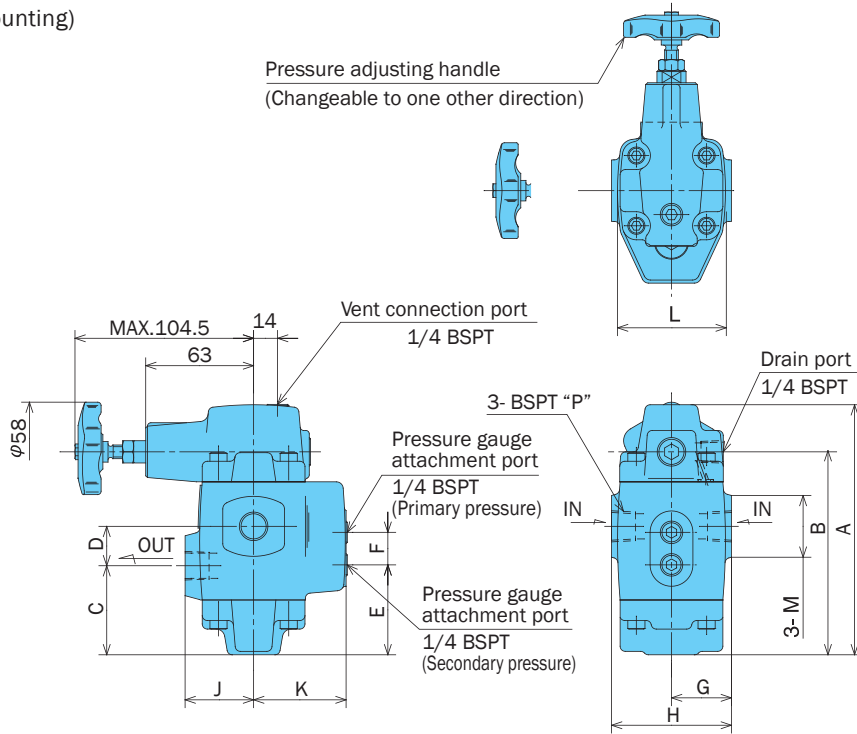
G-G**-*-21 (Gasket Mounting)



Model No.	A	B	C	D	E	F	G	H	J	K	L	M
G-G03-*-21	146	118.5	62	45.1	52.5	19	35	70	60	88	4	60
G-G06-*-21	174	148	82	51.4	64	24	40	80	70	102	4	70
G-G10-*-21	203.5	178.5	102	54	73	30	51	102	92	122	6	92

Note: The orientation of the pressure adjusting handle cannot be change.

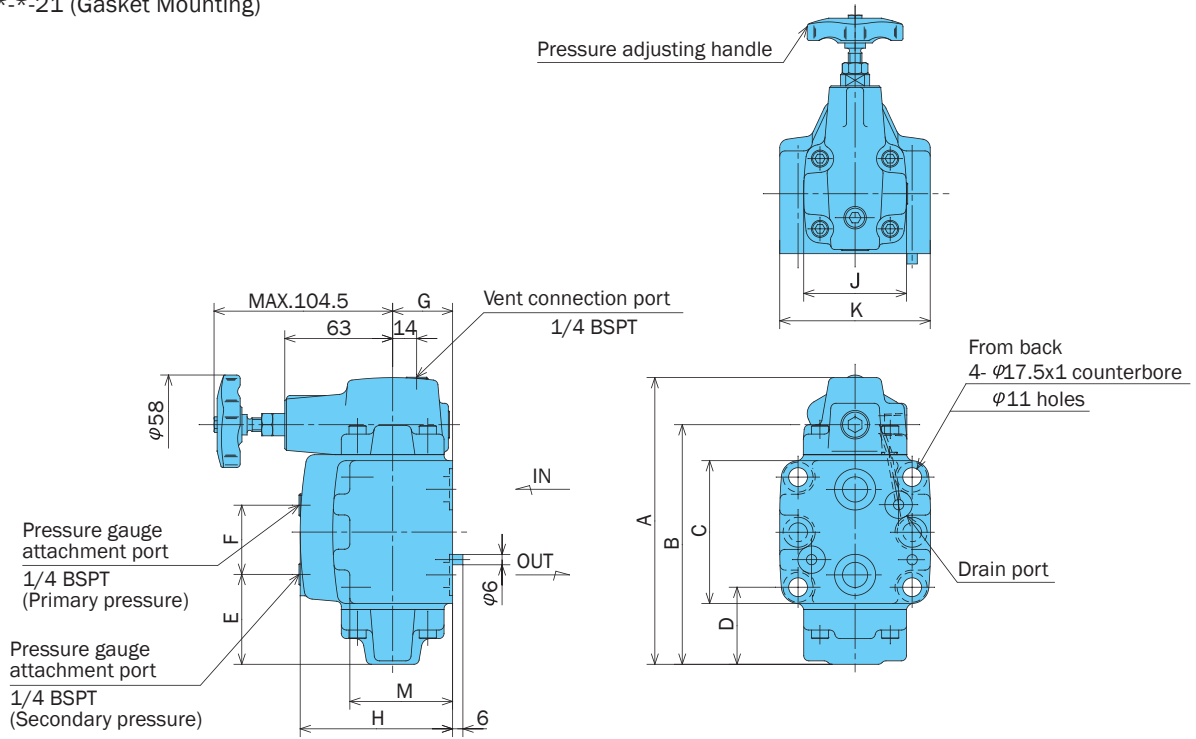
CG-T**-*-21 (Screw Mounting)



Model No.	A	B	C	D	E	F	G	H	J	K	L	M	P
CG-T03-*-21	146	118.5	52	23	52.5	19	35	70	40	54	63	36	3/8
CG-T06-*-21	174	148	66.5	27	64	24	47.5	95	50	60	73	54	3/4
CG-T10-*-21	203.5	178.5	80.5	28	73	30	54	108	68.5	80	95	69	1 1/4

Note: After the orientation of the pressure adjusting handle has been changed, also modify the cover alignment surface ring (1B-P6).

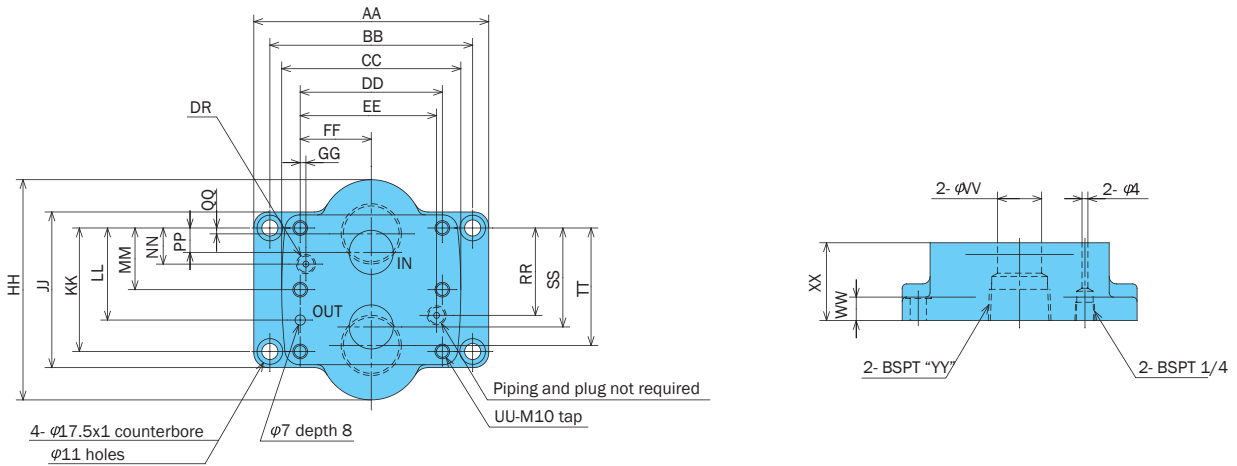
CG-G**-*-21 (Gasket Mounting)



Model No.	Dimensions mm											
	A	B	C	D	E	F	G	H	J	K	L	M
CG-G03*-21	146	118.5	62	45.1	52.5	19	35	89	60	88	4	60
CG-G06*-21	174	148	82	51.4	64	24	40	100	70	102	4	70
CG-G10*-21	203.5	178.5	102	54	73	30	51	131	92	122	6	92

Note: The orientation of the pressure adjusting handle cannot be change.

Sub Plate MG**-**-20

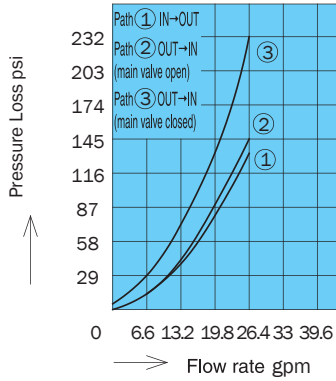


Model No.	Dimensions mm																						
	AA	BB	CC	DD	EE	FF	GG	HH	JJ	KK	LL	MM	NN	PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY
MG-03-20	128	106.4	88	66.6	58.7	33.3	7.9	76	62	42.9	31.8	-	21.4	7.2	3.5	21.5	35.7	39.5	4	14	11	30	3/8
MG-03X-20																							1/2
MG-06-20	146	123.8	102	79.3	72.9	39.7	6.4	110	82	60.3	44.5	-	20.6	11.1	3.7	39.7	49.2	56.7	4	22	16	40	3/4
MG-06X-20																							1
MG-10-20	160	138.1	122	96.8	92.9	48.4	3.9	150	102	84.1	62.7	42.1	24.6	16.7	4.1	59.5	67.5	80.1	6	30	16	53	1 1/4
MG-10X-20																							1 1/2

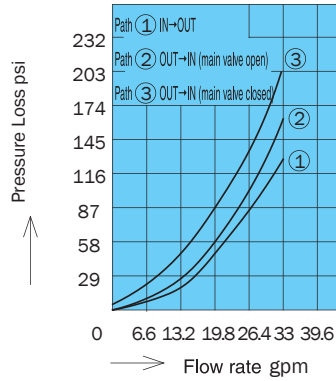
Performance Curves

Hydraulic Operating Fluid Viscosity 32 centistokes

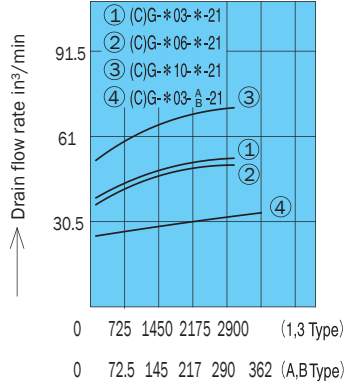
Pressure Loss Characteristics
(C)G-G03-*-21



(C)G-T03-*-21

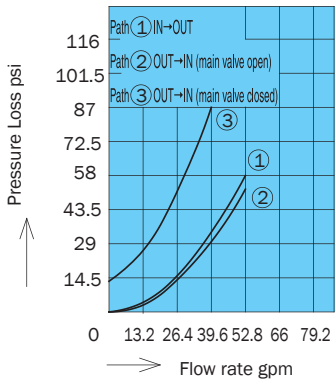


Pressure - Drain Flow Rate Characteristics
(C)G-***-*-21

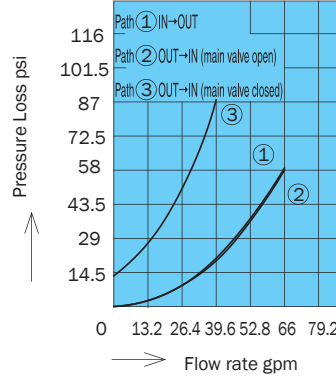


Differential pressure psi
Secondary Pressure - Flow Rate Characteristics

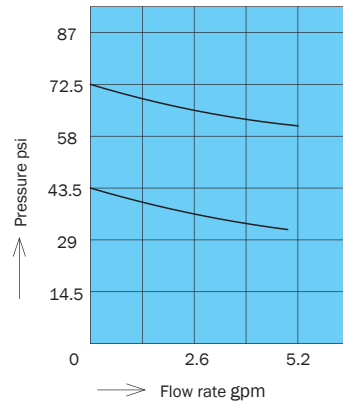
(C)G-G06-*-21



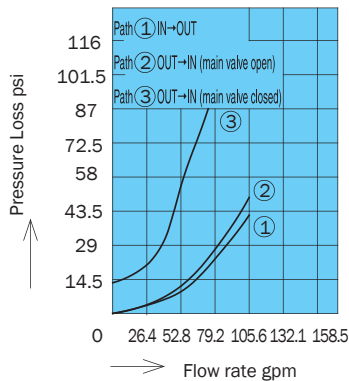
(C)G-T06-*-21



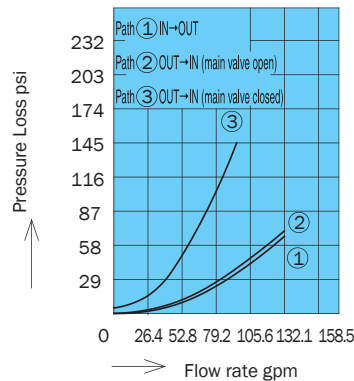
(C)G-03-A-B-21



(C)G-G10-*-21

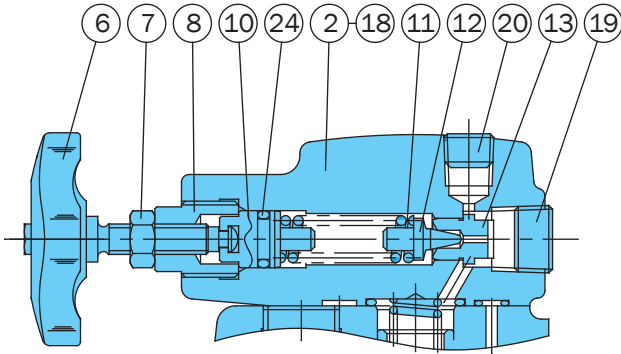


(C)G-T10-*-21

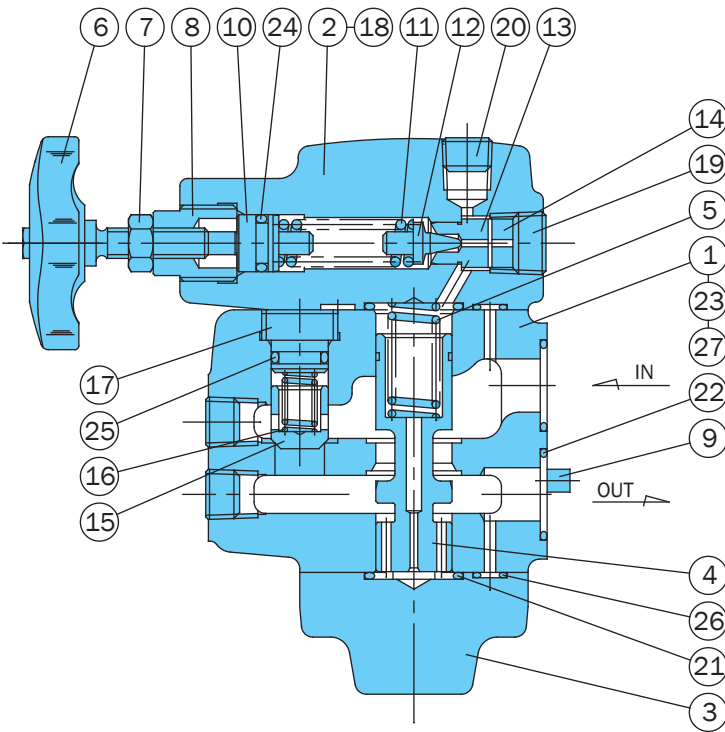


Cross-sectional Drawing

(C)G-G**-^A/_B-21



CG-G**-**-21



Part No.	Part Name
1	Body
2	Cover
3	Cover
4	Piston
5	Spring
6	Handle
7	Nut
8	Retainer
9	Spring pin
10	Push rod
11	Spring
12	Poppet
13	Seat
14	Collar
15	Poppet
16	Spring
17	Spring guide
18	Screw
19	Plug
20	Plug
21	O-ring
22	O-ring
23	O-ring
24	O-ring
25	O-ring
26	O-ring
27	Nameplate

Note: Part numbers 15, 16, 17, and 25 are not required when there is no check valve.

Seal Part List (Kit Model Number RGS-***)

Part No.	Part Name	Part Number						Q'ty
		CG-G03-*-21	CG-T03-*-21	CG-G06-*-21	CG-T06-*-21	CG-G10-*-21	CG-T10-*-21	
21	O-ring	1B-P22	1B-P22	1B-G30	1B-G30	1B-G40	1B-G40	2
22	O-ring	1B-P20	-	1B-P26	-	1B-G35	-	2
23	O-ring	1B-P12	-	1B-P12	-	1B-P12	-	2
24	O-ring	1A-P11	1A-P11	1A-P11	1A-P11	1A-P11	1A-P11	1
25	O-ring	1B-P11	1B-P11	1B-P14	1B-P14	1B-P22	1B-P22	1
26	O-ring	1B-P6	1B-P6	1B-P6	1B-P6	1B-P6	1B-P6	4

Note: O-ring 1A/B-** refers to JIS B2401 1A/B-**.

*** in the kit number is used for specification of the valve size (G03, T06, etc.) To specify inclusion of a check valve, add C to the end.